



大阪医学統計学セミナー第111回

Osaka Biostatistics Seminar

10月23日 (金)
16:00~18:00



「Interventional effects in semi-competing risks with treatment-induced confounding」

Speaker : Yuhao Deng

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Abstract: In clinical studies, the risk of the primary (terminal) event may be modified by intermediate events, resulting in semi-competing risks. To study the treatment effect on the terminal event mediated by the intermediate event, researchers wish to decompose the total effect into direct and indirect effects. We extend the randomized interventional approach to time-to-event outcomes, where both intermediate and terminal events are subject to right censoring. We envision a random draw for the intermediate event process from a reference distribution, either marginally over time-varying confounders or conditionally given the observed history. We present the identification formula for interventional effects. We also discuss some variants of the identification assumptions. We estimate the treatment effects using nonparametric maximum likelihood estimation and propose a sensitivity analysis that incorporates a latent frailty. As an illustration, we study the effect of matched unrelated donor versus haploidentical donor on death mediated by relapse in a hematopoietic cell transplantation study with graft-versus-host disease (GVHD) as the time-varying confounder.

Reference: Deng Y, Wang R, Zhang T, Zhan X. Randomized interventional effects for semicompeting risks, with application to a hematopoietic cell transplantation study. *Statistics in Medicine*. 2026.

場所 :
医学系研究科基礎研究棟L階
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オンライン併用開催

参加ご希望の方は、前日までに
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